

Extra Spicy nth Term problems Part 2

You are allowed to work in your groups to solve these problems. Do not get too loud. Otherwise, you will separate back into rows and complete these problems on your own. You are to do these problems on your own paper. Each person will turn in his/her own paper. Do not forget to fold your paper into boxes. Highlight your final answers. This will count as a grade. Show your work. No work = no credit. Be cognizant (aware) of the time. Whatever you do not finish will count against you. By the way, the class will be given a behavior grade of either A or F, there is no in between for me. You're either very good or you're not. Should your behavior grade be an F, the consequences will be severe. You have been warned.

Find the value of the 75th term for each of the following sequences:

- 1) 3, -2, 5, 24, 55.....
- 2) 6, 35, 84, 153, 242...
- 3) 21, 121, 285, 513, 805....
- 4) 4, -3, 14, 55, 120....
- 5) 3, -1, 3, 15, 35....
- 6) 1, 35/3, 33, 65, 323/3....
- 7) -12, -7, 0, 9, 20....
- 8) 0, 5, 14, 27, 44....
- 9) 25, 56, 99, 154, 221....
- 10) 1, 12, 35, 70, 117...

- 11) How many handshakes are possible at a party with 450 people?
- 12) How many sides does a polygon have if it has a TOTAL of 11, 025 diagonals? (hint: you will have to use your factoring skills for this problem since you will have a quadratic equation. Remember how I showed you to use the factor tree to get the prime factorization of the number.)
- 13) Find the next term for the following sequence: 500, 771, 1098, 1482, 1925, 2430, 3001.?
- 14) Find the next two terms for the following sequence: O, T, T, F, F, S,S, E, ?, ?
- 15) Find the sum of the first 66 even integers.
- 16) $57+59+61+\dots+311=?$
- 17) $2+4+6+\dots+1232=?$
- 18) Find the sum of the first 211 odd integers?
- 19) $88+90+92+\dots+644=?$
- 20) Find the sum of the first 300 integers.
- 21) $95+96+97+\dots+216=?$
- 22) $313+315+317+\dots+799=?$
- 23) $768+770+772+\dots+1500=?$
- 24) $1+3+5+\dots+637=?$
- 25) $1+2+3+\dots+888=?$
- 26) Find the sum of the first 80 multiples of 6.
- 27) Find the sum of the first 90 multiples of 3.
- 28) Find the difference between the sum of the first 100 multiples of 8 and the sum of the first 50 multiples of 3.